REMARKS/ARGUMENTS

Applicants have amended their Abstract to delete "(Figure 1)"and to correct grammatical and other minor issues, and have attached a "clean" copy of the Abstract on a separate sheet. Applicants have also amended their claims to more particularly point out the invention, thus overcoming the 35 USC 112, second paragraph rejection. Applicants request reconsideration and allowance in view of the claim amendments and the following remarks.

Drawing Issue

The Examiner asserts that the features show in claims 3, 7 and 9 are not shown in the drawings, and has required additional drawings. However, in view of the explanation below, no new or corrected drawings are believed to be required. If the Examiner disagrees, he is requested to contact the undersigned by telephone to discuss and applicants will be happy to submit additional or corrected drawings as the Examiner may request.

Claim 3 refers to the feature that the distance between the axes of the inner conductors 42, 42'a of the interconnection resonator pair is less than the distance between the other resonators. This feature is already depicted in Figure 1 for example. You see that the distance between the centers of both inner conductors 42, 42'a is less than the distance between the inner conductors 41'a and 41a or 43'a and 43a, even less than the distance between the inner conductors 42'a and 42'a or 42'a and 43'a.

The subject matter of claim 7 is directed to a dielectric resonator. The arrangement of Figure 1 could be made of dielectric (e.g., ceramic). Accordingly, Figure 1 does appear to already show the claimed feature.

Applicants have canceled claim 9 (directed to a stripline resonator) without prejudice or disclaimer in order to obviate the drawing issue.

Prior Art Rejection

Applicants disclose, as one exemplary illustrative implementation, a common port 22 iconnected with a first resonator R42 which in turn is connected with the second resonator R42'. Resonator R42' is the diplexing point so that the transmitting signals can propagate from the port 21 via the receiving port (resonator R41 and R41') and via the common resonators R42' and R42 to the antenna port 22 and whereby the receiving signals coming from the antenna port 22 via the resonators 42 and 42' can propagate via the receiving path (i.e., the resonators R43' and R43) to the receiving port 23.

In this exemplary implementation in accordance to the pending application, applicants thus disclose, in addition to the receiving path and transmitting path, **plural strongly coupled resonators R42 and R42' which belong to both the receiving and transmitting paths**. These two additional provided resonators R42 and R42' form an interconnection resonator pair which are strongly coupled to one another. This feature, which is recited in each claim herein, distinguishes the claimed subject matter over the applied references.

Jang shows a dielectric resonator which is perhaps somewhat representative of prior art of the type discussed in the introductory part of the pending application (see for example the third paragraph line 23 to 33 of the English translation of the pending application). Jang has a transmission path coming from the input port T_x and an ending port at the antenna output. A second path is the receiving path R_x extending between the input port R_x and which ends at the antenna output at the middle of the device.

In Jang, each resonator only belongs to one path, i.e., a resonator only belongs to the transmission path or only belongs to the receiving path. Jang thus teaches that the resonators belong to one path totally separated from the resonators belonging to the other path. Only the resonators in one path, for example the transmission path or the receiving path, are coupled with adjacent positioned resonators. There does not appear to be any disclosure of a pair of strongly coupled interconnection resonators in common between both paths as applicants claim herein..

Radcliff's diplexer shows two connectors 28, 29, each being the end of one path. On the other side of the device there is a common port 20 usually leading to an antenna device. One path between port 20 and connection point 28 may be the receiving part whereby the other path between the port 20 and the port 29 may be the transmission path (or vice versa). Radcliff's Figure 1 shows how port 20 is connected between the resonators. See also Radcliffe's column 4, last paragraph where it is pointed out that the transmit and receive paths are distinct:

> An external or common antenna port 20 is diplexed to resonators 19 of cavities A and I of the respective (transmit)

> and (receive) sections 2, 3. This diplxing is achieved by means of a T junction 21 connected by wire sections 22 having one end 22a which extends into a connector sleeve 23 at a tapping point 24 intermediate the ends of the respective central tubular resonator 19....

Radcliff thus teaches a person skilled in the art to use two different paths (for transmitting and receiving) having resonators which totally only belong to one or the other path. Once again, there does not appear to be any disclosure of a pair of strongly coupled interconnection resonators in common between both paths.

The Examiner asserts that Hino's resonators 3C and 4A are inherently coupled to each other electromagnetically. See Office Action at 6. However, Hino's dielectric diplexer comprises six resonators. The number of resonators is an even natural integer. Especially figure 12 shows that there is a common signal path 14 which is divided at the introductory part into two separated resonators 3C and 4A. That is a similar solution as discussed by Jang and Radcliff, respectively. Thus, even assuming the Examiner were correct that Hino's resonators 3C and 4A are coupled, they are not both in a common signal path as applicants have claimed.

Hino also discusses the so-called "prior art" with regard to figure 1 or 2 of his application. In this special solution there is an introductory port Pa connected with a first resonator S which is called a "wave-dividing resonator S" (column 1, line 43). This wave-dividing resonator S could possibly be equated with the first resonator R42 of the pending application. But what Hino does not disclose, discuss or suggest is to use a second resonator strongly coupled with the resonator S in a common signal path to form

an interconnection resonator pair. This feature thus defines the claimed subject matter of independent claims 1 and 10 over all of Hino, Radcliff and Jang since none of them appears to teach this feature.

In connection with dependent 4, the Examiner additionally asserts that Jang discloses an RF diplexer having a total of 2n resonators, n = a natural odd integer. This is incorrect. Jang shows a diplexer with twelve resonators so that n= 6, i.e., n = an even integer and not an odd one. The same can be said with regard to Radcliff. Radcliff shows a diplexer with sixteen resonators so that n = an even integer – not an odd one. Thus, at least applicant's dependent claim 4 is independently patentable over the applied references for this additional reason.

All outstanding issues have been addressed and this application is in condition for allowance. Should any minor issues remain outstanding, the Examiner should contact the undersigned at the telephone number listed below so they can be resolved expeditiously without need of a further written action.

Respectfully submitted,

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